

REMARKS

This is a response to an Office Action of January 8, 2010. Claims 1-21 have been cancelled. Claims 22-38 are new.

Reconsideration of the Application is requested in view of the comments and amendments herein.

The Office Action

Claims 1-16 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 9 is rejected under 35 U.S.C. 102(b) as being anticipated by Schorghuber (U.S. 4,402,850).

Claims 1-8, 12, 19, and 20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Schorghuber.

Claims 10, 11, and 21 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Schorghuber and further in view of Koppelman (U.S. 4,486,314).

Claims 13-16 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Schorghuber and further in view of Casale (U.S. 4,035,259).

Indefiniteness Rejections

Claims 1-16 have been rejected as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1-16 are cancelled herein, and Applicant submits that the newly added claims overcome any indefiniteness issues.

Particularly, original claim 13 (similar to newly added claim 22) is rejected for including “increased” and “highly”, which the Examiner asserts are vague and indefinite. Applicant respectfully submits that the term “increased” is not indefinite or vague. An increased temperature indicates that a temperature is greater than room temperature. Therefore, it does not introduce any ambiguity into the claims. Claim 22 no longer includes the qualifier “highly”.

The Subject Claims Patentably Distinguish Over the Cited References

Applicant submits that the presently claimed invention patentably distinguishes over Schorghuber. Schorghuber is directed to a method for producing a liquid agent for treatment of contaminated water that includes introducing comminuted rock-salt clay or a mixture thereof with rock salt deads into a solution of an inorganic base that is then stirred for a period of a few hours. Schorghuber begins with an **alkaline** medium with a pH of over 12 (col. 4, lines 29-41) and subsequently adjusts the pH of the solution to between 9.0 and 11 by the addition of an acid or an alkali (col. 4, lines 52-57). In contrast, the present claims are directed to a method that decomposes and breaks up rock-salt clay, or comminuted rock salt clay, at an increased temperature in an **acid** medium (pH less than 1), that is subsequently adjusted to become alkaline (at least 12 in claims 23-24). Accordingly, Schorghuber, which begins with a highly alkaline medium, is in direct opposition to that of the subject claims and would lead one skilled in the art away from the method of the presently claimed invention. Moreover, the subject claims require that decomposition occur in initial acid medium at an increased temperature, particularly shown in claim 25 with a temperature of 70-80°C. Therefore, not only does Schorghuber fail to teach that the initial solution is acidic, but Schorghuber additionally fails to teach that salt clay decomposition occurs at an increased temperature. Schorghuber simply teaches that the alkaline solution containing rock-salt clay is stirred for about 2 to 4 hours without any mention or suggestion of temperature playing a role.

Moreover, Schorghuber teaches that after the pH is brought down to between 9 and 11, the un-dissolved portions are settled out (between 5 to 10 hours), and the supernatant colorless solution is poured off. In contrast, the subject claims recite that this alkaline suspension is kept for a minimum of two days at an increased temperature prior to separating the alkaline aqueous flocculation agent from the solid flocculation and sedimentation agent. This two day period achieves the desired homogeneous suspension in which solid substances will no longer settle down. Once again, it is clear that Schorghuber does not implement a temperature change; particularly, increasing the temperature prior to separating the final solution from the un-dissolved portions, let alone for a minimum of two days.

In addition, the alkaline aqueous flocculating agent of the subject claims is based on an alkali aqueous salt clay extract with contents of dissolved silicates and aluminates as well as alkali chloride. For every 1 part by weight of aluminates, expressed as $\text{Al}(\text{OH})_3$, the agent

includes 2 to 3 parts by weight of silicate (expressed as SiO_2) and at least 10 parts by weight alkali chloride. Schorghuber however, fails to teach or suggest alkaline aqueous flocculating agents with the claimed contents; particularly, amounts of silicate and alkali chloride that depend on the amount of aluminates. The Examiner submits that the rock-salt clays used to prepare the agent in Schorghuber appear to produce flocculating agents that include the required parts by weight of aluminates, silicate, and alkali chloride. Applicant respectfully disagrees, particularly since Schorghuber's method of producing this agent significantly differs from the subject application, particularly by starting with an alkaline solution having a pH over 12. The Examiner asserts that Schorghuber does not exclude use of pH values higher than 11; however, Schorghuber certainly does not teach or suggest starting with a pH value of less than 1 when preparing the agent. As such, the assertion that it would have been obvious to one skilled in the art to modify the agent of Schorghuber by utilizing the recited parts by weight and pH value is without merit, since the method of producing the agent described by Schorghuber teaches opposing steps and conditions.

Applicant asserts that the Examiner has only provided conclusory statements without any support from the actual teaching of Schorghuber, particularly reasoning as to why one skilled in the art would completely ignore the method of agent production taught in Schorghuber and implement that of the subject application. Rejections based on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. (See MPEP §2143 citing *KSR v. Teleflex, Inc.*, 550 U.S. 398 (2007)). According to *KSR*, the key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reasons why the claimed invention would have been obvious. Applicant respectfully submits that there lacks a proper reasoning as to why the claimed limitations would have been obvious, making the rejections improper.

The Examiner recognizes that Schorghuber fails to teach or suggest that the method initially breaks down the salt clay in an acid medium at a specific temperature; however, cites to Casale as teaching that it is known in the art to treat a clay with acid and heat to aid in forming a flocculating composition. Applicant respectfully submits that the Examiner has selected one step out of a completely different process, without proper motivation, applied it to the Schorghuber method without any regard for the remaining steps in the Casale process, which include autoclave at 150°C and the gradual cooling and filtration of the mixture. No teaching or

suggestion has been identified that would lead one of ordinary skill in the art to replace the first step of Schorghuber, explicitly asserting that the base should have a pH of more than 12. (See col. 4, lines 41-42). The present rejection is based on improper hindsight to recreate the presently claimed invention by piecemeal. As stated by the Federal Circuit, "it is impermissible to use the claimed invention as an instruction manual or 'template' to piece together the teachings of the prior art so that the claimed invention is rendered obvious. ... This court has previously stated that '[o]ne cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention. *In re Fritch*, 972 F.2d 1260, 1266, 23 USPQ2d 1780 (Fed. Cir., 1992).

For at least the aforementioned reasons, Applicant respectfully submits that the subject claims patentably distinguish over the references of record.


CONCLUSION

For the reasons detailed above, it is respectfully submitted all claims remaining in the application (Claims 22-38) are now in condition for allowance.

Respectfully submitted,

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Date



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